Study programme(s): Informatics (IM)

Level: master

**Course title:** Information systems development process (code IB221)

Lecturer: Srđan M. Škrbić

Status: obligatory for the Information technologies module; elective for other modules.

#### **ECTS**: 7,5

## Requirements: none

## Learning objectives

This course covers two important aspects related to information system development process – choice and grading of methodologies and management of the system development process, and has a goal to consider a spectre of problems which influence the success of information system development projects.

#### Learning outcomes

*Minimal*: Students are expected to show the ability to discuss advantages and disadvantages of different methodologies for information system development and questions included in their acceptance, the need for consciousness in management of organization relations and importance of successful structures for reporting and communication, and of ways in which some system advantages may be graded.

*Optimal:* Students are expected to show the ability to identify the main questions related to planning and staff involved in management of the project of information system development, suggest appropriate techniques and methods for a given project, and choose the appropriate methodology for a given project of information system development, as well as to justify the choice.

#### Syllabus

#### Theoretical instruction

Studying notions of project and project management with the emphasis on software projects. Improving products and services and CRM (Customer Relationship Management). The first part of the course ends with an overview of characteristics of software projects. Second part of the course deals with the Rational Unified Process in detail. Phases and iterations, static process structure, workflows, integrations with tools etc. The third part of the course is about agile methodologies: basics of Extreme programming, Scrum, DSDM (Dynamic Systems Development Method).

Practical instruction

Introducing the key support tool for the Rational Unified Process – IBM Rational Method Composer. Agile methodologies with emphasis on tools for the Scrum methodology.

#### Literature

1. Marković, V.: Informatičko sazrevanje kompanije. Budućnost, 2005.

- 2. Kruchten, P.: The Rational Unified Process An Introduction. 3rd ed., Addison-Wesley, 2003.
- 3. Essentials of Rational Unified Process. IBM Courseware.
- 4. Rational Unified Process Best Practices for Software Development Teams. Rational, 1998.

5. Abrahamsson, P., Salo, O., Ronkainen, J., Warsta, J.: Agile Software Development Methods: Review and Analysis. VTT Publications 478, p. 61-68 (2002)

# Weekly teaching load Other: Lectures: 3 Exercises: 2 Other forms of teaching: Student research:

## **Teaching methodology**

Classical methodology is applied in lectures including the use of video-beam and slides projector. On practical classes, classical methods of teaching with the use of a video-beam and computers with appropriate software installed are used to practically master the skills of usage of the tools suggested. Precondition for successful practical classes is having enough computers so that every student is able to work individually.

Grading (maximum number of points 100)			
Pre-exam obligations	points	Final exam	points
Colloquia	50	Oral exam	50